

## SOLUTION BRIEF

# Data protection is complex. Simplify.

Hitachi FlexProtect powered by  
Veritas Technologies LLC

This **All-In-One/Plug-and-Play package** gives you a simplified management platform for a scalable, cyber resilient data protection solution that takes just minutes to configure and initiate a deployment.



## Simple to Scale, Easy to Operate, Cyber Resilient.

Scalability is the only answer in today's complex IT environment.

Hitachi FlexProtect delivers a powerful, scalable cyber resilient data protection and recovery solution. By combining our powerful, high performance hyperconverged Hitachi HA820 Gen 2 servers with the latest multi-layer, immutable security architecture from Veritas – we not only protect your data and infrastructure, we enable you to exceed all your workload requirements and be staged for tomorrow's growth.

IT departments are building hybrid and private clouds to take advantage of public cloud-like agility, scalability and ease of use. Hitachi FlexProtect is the answer to maintaining control over your data and meeting regulatory requirements while maximizing ROI.

## Data is in our DNA.

We are the leader in powering global, mission-critical digital and industrial environments. By partnering with Veritas, a multi-decade leader in enterprise backup and data recovery, as recognized by Gartner, we are offering this transformational solution – **Hitachi FlexProtect**.

# Data Protection for the Complete Enterprise

With Hitachi FlexProtect, enterprises can extend NetBackup data protection as they modernize their data centers.

Enterprises can deploy a single data protection solution for all its workloads and environments. Hitachi FlexProtect appliances support the broadest range of workloads and offer organizations deep control of their data protection infrastructure. Organizations can consolidate deployments, simplify management and add cyber resiliency with Hitachi FlexProtect and address their scalability, automation and scale-out infrastructure needs.

## Modernizing the Data Center is Key to Enabling Digital Transformation.

To improve your business competitiveness and to thrive, the following challenges must be overcome:

- Quickly respond to dynamic market changes.
- Maximize underutilized IT resources.
- Improve operational efficiency.
- Deliver workload-specific service level agreements (SLAs).
- Provide continuous application availability.

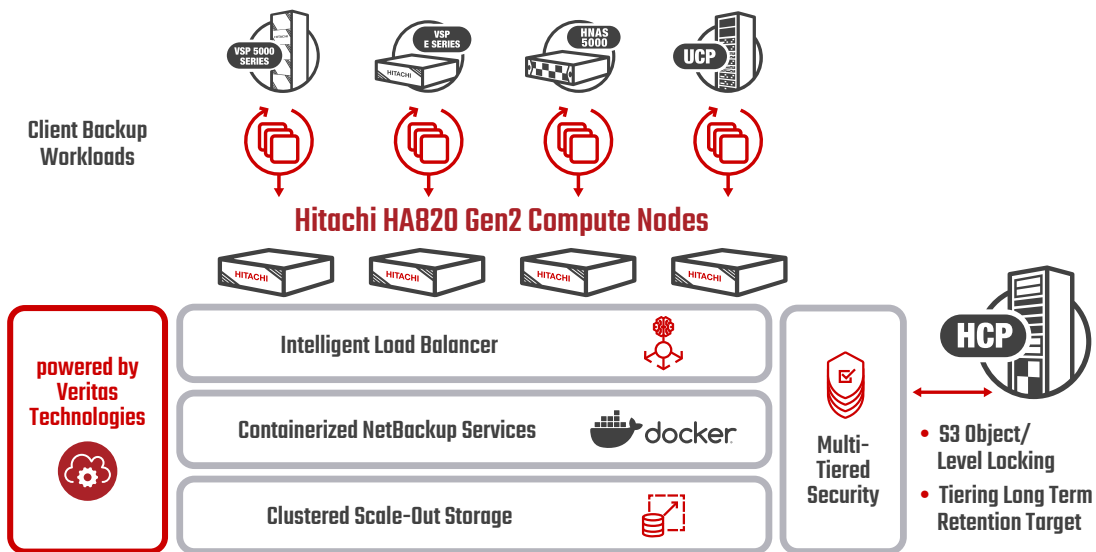
## Automated, Scale Out, Enterprise-Class Data Protection that is Easily Managed.

Hitachi FlexProtect extends Veritas NetBackup with an automated, containerized, scale-out architecture. Now, organizations can easily scale industry-leading NetBackup in performance and capacity as they grow and change. Application owners can easily manage data protection for their workloads with an intuitive interface based on a comprehensive set of application programming interfaces (APIs) and software development kits (SDKs).

NetBackup services are automatically installed and enabled at the time of the deployment without any involvement from the user. Workloads are automatically balanced and scaled across the Hitachi FlexProtect cluster.

Modern IT solutions demand scalability. The Hitachi FlexProtect infrastructure scales non-disruptively in performance and capacity by simply adding nodes. The complete hyperconverged infrastructure is managed from the same interface as the NetBackup services.

The recent trends in IT are to have more generalists on staff that are tasked with handling a range of tasks, rather than experts dedicated to specific areas such as data protection.



## Backup & Recovery

Backup is about recovery. Otherwise, what's the point. In fact, the true test of a modern solution is its ability to ingest the vast amounts of data that must be protected, while still delivering on performance and operational efficiency.

Hitachi FlexProtect is optimized for the recovery speed and parallelism you need to get your business back up and running quickly in the event of an outage. It not only allows you to run multiple parallel recovery operations, but also gives you instant access to your most critical data stored in virtual machines (VMs) and applications, like Oracle and MSSQL. It works by presenting a read-only copy of the backup image that can be mounted for immediate access to the data, without affecting the backup image or the recoverability of the data.

Hitachi FlexProtect uniquely employs resource prioritization for backup/restore operations and over-node scaling/rebalancing jobs, ensuring critical SLAs are met. Our containerized architecture also makes software downloads and upgrades directly from the web UI or API fast and easy.

**In our testing, we were able to mount 1600 VMs from backup images to instantly gain access to their data.**

## Containerized Architecture for In-depth Security

A service architecture based on containers is inherently more secure due to the isolated nature of container resource allocation and namespaces and their logically separated configurations. Veritas has taken advantage of these attributes to implement a container-based NetBackup architecture running on Hitachi FlexProtect instead that takes an in-depth, multi-level approach to preventing any unauthorized access to system data or unauthorized use of system resources.

- The service containers are designed to eliminate the need for elevated system privileges; the containers themselves are given permissions (using SELinux mandatory access controls [MAC]) only to the system resources required for their continuing operation, preventing them from becoming a method of unauthorized privilege elevation. The container environment will refuse to execute or allocate resources to programs not matching a predefined allowed list.

(FlexProtect), with its containerized, hyperconverged, scale-out architecture, offers simple, automated deployment; easy management; and the scalability needed to handle enterprise-level data protection workloads.

ESG validated that (FlexProtect), with its containerized, hyperconverged, scale-out architecture, offers simple, automated deployment and scalability. Using the easy set-up wizard, deployment took less than five minutes of administrator time, after which (FlexProtect) completed the installation on its own. Adding nodes to the cluster was equally easy, requiring just a few clicks. (FlexProtect) automatically added the nodes, scaled the clustered file system, and rebalanced data across the expanded cluster, with no changes to policies or clients.



Source: ESG showcase NetBackup Flexscale operational efficiency – November 2021

- Container resources are inherently isolated from each other because they operate in separate Linux Control Groups (Cgroups). These Cgroups hierarchically organize access to node storage and network subsystems as well as system resources and prevent processes running in the context of one Cgroup from visibility into the operating context of another.
- Starting a container-based service is subject to security constraints and checks: rather than being read and executed from a node's operating system files, a container's contents are bundled together in binary form and a checksum comparison is carried out before execution to ensure program contents are immutable.

## Pay-As-You-Grow Scale-Out Architecture

FlexProtect extends Veritas NetBackup with an automated, containerized, scale-out architecture. Now, organizations can easily scale industry-leading NetBackup in performance and capacity as they grow and change. Application owners can easily manage data protection for their workloads with an intuitive interface based on a comprehensive set of application programming interfaces (APIs) and software development kits (SDKs).

FlexProtect services are automatically installed and enabled at the time of the deployment without any involvement from the user. Workloads are automatically balanced and scaled across the cluster.

## Reduce Operational Costs

Access to business-critical data is imperative. FlexProtect appliances are fast to deploy and ensure end-to-end support of the complete data protection solution. You won't need to load, install, test, integrate, optimize, manage and support multiple components, such as a server, storage, operating system, application software and network connectivity. There's no need to integrate with solutions from other suppliers.

When protecting exponentially growing diverse data sets, enterprises often depend on multiple backup appliances. FlexProtect's scale out technology solves this issue by accommodating growth by adding nodes as data grows. FlexProtect provides a single, modern web-based appliance management console for monitoring and managing a fleet of backup appliances.

FlexProtect customers have no learning curve to delay time to value, just an automated, scale-out, containerized architecture underneath what they already know. Automation and orchestration features include:

- Scale-out, deduplicated storage
- Intelligent load balancing and resource management
- Deployment, upgrade and node replacement as automated tasks
- Containerized NetBackup services

## A Hyperconverged Infrastructure can help.

Hyperconverged infrastructure is an evolution of converged infrastructure, delivering ultimate simplicity, in not only bringing together compute and storage, but also collapsing them for tight integration. It eliminates data locality issues for latency-sensitive business applications.

## Product Highlights

- **Pay-As-You-Grow**  
Scale Out Data Protection (Backup/Recovery) Architecture.
- **Software Defined Scale-Out, containerized architecture**  
Easily manage and deploy data protection services with seamless scalability. Scale from 4 nodes to 16 nodes seamlessly with Hitachi HA820 Gen2 compute nodes. These NetBackup services self-heal and automatically scale with the cluster.
- **Cyber Resilience**  
Protect the data and infrastructure with immutable storage and a hardened OS that provides multiple layers of security enhancements providing the highest level of cyber resiliency.
- **Security and compliance**  
Support for Security Technical Implementation Guides (STIGs) and Federal Information Processing Standards (FIPS).
- **Robust computing power**  
powered by Intel technology.
- **Optimized and distributed deduplication**  
Includes application-aware dedupe with the option to choose between variable and fixed-length and better client-side deduplication. Send deduplicated data directly to HCP via S3.
- **Dynamic Resiliency increases with cluster size**  
Ensures continual data protection and increases resiliency as your cluster size grows.
- **Complete NetBackup data protection**  
Protects 800+ workloads and 60+ Cloud data sources supporting legacy and modern workloads.
- **Easily integrate with existing NetBackup Deployments**  
Implement a scale-out strategy without a data migration.
- **Improved ROI**  
Reduce acquisition costs with Veritas validated servers from Hitachi.
- **Simplified Management and deployment**
- **Wide-Support**  
Supports applications running on Hitachi VSP Storage platforms, HNAS and UCP.
- **Integrated Snapshot management**  
With VSP, and advanced DNAS support for HNAS.
- **Cloud Integration**  
HCP Cloud Scale with S3 Level Locking for Immutability, governance, & compliance retention for tiering out data.
- **Automation**  
Easily Respond in Unpredictable Environments.

## Hitachi Advanced Server HA820 G2

### High Scalability and Performance for Solution Workloads.

With a combination of two Intel Xeon Scalable processors and high storage capacity in a 2U rack space package, Hitachi Advanced Server HA820 G2 delivers the storage and I/O to meet the needs of converged solutions and high performance applications in the data center.



SPECIFICATION	NODE SERVER SPEC						
<b>BASE SERVER</b>	Hitachi Advanced Server HA820 G2						
<b>PROCESSOR</b>	Dual 16 cores, 32 threads Intel Xeon Silver 4314 Processor						
<b>MEMORY</b>	16GB 2Rx8 PC4-3200/ Up to 32 (Default:12)						
<b>NETWORKING CONNECTIVITY</b>	In System	<b>NIC Count</b>	<b>Port count</b>	<b>Total</b>	<b>Speed</b>	<b>Port type</b>	<b>Purpose</b>
		2	2	4	10/25Gbps	SFP28	Cluster, client
		1	4	4	1Gbps	RJ45	Management
		1	1	1	1Gbps	RJ45	IPMI
<b>ONBOARD STORAGE</b>		<b>Media type</b>	<b>Protocol</b>	<b>Port count</b>	<b>Drive size</b>		
		HDD	SAS	12	14TB		
		SSD	SATA	2	192TB		
		NVMe	PCIe	2	7.68TB		
<b>DIMENSIONS/WEIGHT</b>	8.75 x 44.54 x 74.9 cm/3.44 x 17.54 x 29.5 in/33.99Kg						
<b>SYSTEM POWER CONSUMPTION</b>	Max Load input power (Max cooling demand): 608.02W (923.46W)						

## Contact Us

Let us help you protect and secure your data today, and for tomorrow's growth.

For more information and to learn how Veritas and Hitachi Vantara can help you transform your data, visit [transformingyourdata.com](https://transformingyourdata.com) or contact [transforming.yourdata@veritas.com](mailto:transforming.yourdata@veritas.com).

